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The public reader will direct the public to the block **1108** Public Access landing page, where they will find a level of information concerning the TAG that will provide contact and public safety oriented information. For example, if a person on a walk smells leaking gas, they can use their mobile phone and a generic RFID reader to access the pipeline data belonging to XYZ corp and they will be given an emergency number to call.

Block **1107**—GEOSPATIAL DB—The core system of QCIA is a sophisticated geo-spatial database and application environment that manages the QCIA application program layers as well as maintaining a sophisticated geo-spatial enabled database of all QCIA data. An example of this type of environment is ESRI.

Block **1108**—PUBLIC ACCESS—Public access landing page target for all publically read RFID tags. An individual scans a tag with public or generically available RFID reader software and are automatically taken to the PUBIC ACCESS LANDING page.

Block **1109**—SECURITY INTERFACE—The security interface either stops further inquiry or allows deeper penetration into the system based on password and other identification security measures. The SECURITY INTERFACE is directly accessible to those with the proper URL and also serves as a back-end to Block **1108** PUBLIC ACCESS. The security access allows users to access the heart of the QCIA system which resides and is served up from Block **7** the GEOSPATIAL DB.

Block **1110**—ONLINE USER INTERFACE—This is the interface between field and office devices and the primary computing facilities and database that reside on block **1107**. When a field inspector is collecting data and transferring it to the CLOUD it is through the ONLINE USER INTERFACE. Security for this interface is high and requires validation that the device that is connected is a safe device and that proper credentials have been presented.

Block **1111**—FACILITY OWNER GEOSPACIAL—Most facility owners maintain geospatial databases of their facilities at various levels of sophistication. The system also has the ability to maintain a complete geospatial database or to provide a data set extension to the facility owner database. For example, if the facility owner maintains their own sophisticated database and do not want to share it, the system of the present invention has the ability to provide an extension data set that overlays and enhances the facility owner database with the data that has been developed during the QC\_PROCESS. This provides a complete value add to the facility owner without the need for them to release any of their data outside of their security areas.

FIG. 12 is an exemplary process flow executed by one or more processors, according to some embodiments of the present invention. The executed method performs capturing, organizing and retrieving data for utility assets using RFID tags, among others. As shown in block **1201**, data related to a plurality of utility assets is stored in a database, accessible by a plurality of processors. The stored data may include data about type of the utility asset; repair, documentation, testing validation, and inspection of the utility asset. In block **1202**, a plurality of RFID tags are programmed for placement on a utility asset. The programming process may include retrieving a unique RFID tag identifier from the RFID tag using an RFID reader device, linking data associated with the utility asset to the unique RFID tag identifier, and checking out the programmed RFID tag from an RFID inventory database. This enables an accounting for all RFID tags that are used in the field.

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In block **1203**, the programmed RFID tags are placed on the utility asset. In some embodiments, at least one of the programmed RFID tags is placed on a specific segment of the utility asset as a segment tag, and at least one of the programmed RFID tags is placed near a specific joint of the utility asset as a join tag. In block **1204**, the stored data related to the utility asset (in the database) is linked with the programmed data for the placed RFID tags. The linked data includes location data of the placed RFID tags.

In block **1205**, one or more of the placed RFID tags are queried to retrieve data about the utility asset including data about the location of the utility asset, the type of the utility asset; repair, documentation, testing validation, and inspection of the utility asset.

It will be recognized by those skilled in the art that various modifications may be made to the illustrated and other embodiments of the invention described above, without departing from the broad inventive step thereof. It will be understood therefore that the invention is not limited to the particular embodiments or arrangements disclosed, but is rather intended to cover any changes, adaptations or modifications which are within the scope and spirit of the invention as defined by the appended claims.

What is claimed is:

1. A computer implemented method for capturing, organizing and retrieving data for utility assets using RFID tags, the method comprising:

storing data related to a plurality of utility assets in a database, wherein the stored data includes data about type of the utility assets, repair, documentation, testing validation, and inspection of the utility assets;

programming a plurality of RFID tags for placement on a utility asset by loading programming data into the plurality of RFID tags, by one or more processors;

placing the programmed RFID tags on the utility asset, wherein at least one of the programmed RFID tags is placed on a specific segment of the utility asset as a segment tag, and at least one of the programmed RFID tags is placed near a specific joint of the utility asset as a join tag;

linking stored data related to the utility asset with the programmed data for the placed RFID tags, including location data of the placed RFID tags; and

querying one or more of the placed RFID tags to retrieve data about the utility asset including data about the location of the utility asset, the specific segment and the specific joint, the type of the utility asset; repair, documentation, testing validation, and inspection of the utility asset, by one or more processors, wherein said segment tag includes stored data describing environmental conditions including soil conditions of a location where the specific segment was installed, an X-ray of an operation performed on a join of the specific segment, and data describing the environmental conditions including ambient temperature at a time when a repair was performed on the specific segment, and wherein querying one or more of the placed RFID tags to retrieve data further comprises executing an audit program to validate the data or compliance of the data to certain standards.

2. The method of claim 1, further comprising generating a report about the utility asset, according to a plurality of stored rules.

3. The method of claim 1, wherein said stored data related to the plurality of utility assets includes one or more of data collection dates and methods, photographs, voice, videos, and location points, related to the utility asset.